



Reply to
Attention of:

DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT CORPS OF ENGINEERS
167 NORTH MAIN STREET B-202
MEMPHIS TN 38103-1894

For Immediate Release

Grand Prairie Area Demonstration Project GOTs

Glossary of Terms

Following are the Grand Prairie Area Demonstration Project's most frequently used terms:

Acre feet – the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot (or 7.48 gallons per cubic foot X 43,560 square feet = 325,829 gallons cover 1 acre to a depth of one foot)

Alluvial – having to do with alluvium; having the components of alluvium

Alluvial aquifer – an area of water-bearing sand and gravel typically found near lakes, streams and rivers

Alluvium – Clay, silt, sand, gravel, or similar soil material deposited in a common location by running water

Aquifer – A layer of underground sand, gravel, or permeable rock in which water collects. Aquifers may lie close to the surface or at great depths. Aquifers can be hundreds of miles long and wide or narrow, shallow veins running through rock. With such flat ground in the Grand Prairie, rainwater matriculates down through the porous sedimentary rocks where it is stored. When the water source becomes of significant size, it is termed an aquifer, especially when drilling into the rock allows the tapping of the aquifer for use in crop irrigation and animals as well as human use

AHTD – Arkansas Highway and Transportation Department

ANHC – Arkansas National Heritage Commission

ASWCC – Arkansas Soil and Water Conservation Commission

Basin – The soil surface area, which drains into a network of rivers and/or streams

Borrow ditch – the ditch created when dirt is removed to create a levee

CFS – Cubic feet per second

Claypan – The layer of clay found beneath the subsoil which limits or slows the downward movement of water through the soil. A claypan is typically found beneath the soils of the Grand Prairie making them more suitable for growing rice

Cone of depression – an area in the shape of a V within an aquifer where de-watering begins and causes a trench or a trough-like hollowing of the aquifer

Cultural resources (historic properties) – Any prehistoric or historic remains, artifacts, or indicators of human activities. Such remains may offer significant information and be eligible for inclusion in the National Register of Historic Places

D-3 Drought Extreme – A measure of the severity of drought on The Drought Monitor. The Drought Monitor scale ranges from D0 to D4 with D1 being the least intense and D4 being the most intense. D0 is assigned in watch areas, which are either drying out and possibly heading for drought, or recovering from drought but not yet back to normal, suffering long-term impacts such as low reservoir or groundwater levels

Desiccation – Drying up of; dehydration

De-watering – Loss of water, generally speaking of groundwater resources, through natural means or from man-made extraction devices

Drainage – the removal of surface water from within a specific area

Drought – a water supply shortage for a certain use; a quantity or amount less than what is demanded

Excess water – when referring to the GPADP, excess water is defined by the Arkansas State Water Plan for the White River as being greater than the needs for fish and wildlife, navigation, and water quality. Navigation and water quality needs remain the same year round. Fish and wildlife needs vary monthly. During some months the White River must be above flood stage for any water to be considered in excess of fish and wildlife needs and/or for pumping to be allowed

Flyway – an established air route of migratory birds

GPADP – Grand Prairie Area Demonstration Project

Groundwater – water contained within a defined subterranean structure, i.e., sand or gravel formations

Irrigation – the mechanical distribution of water over the ground in lieu of natural rainfall

Irrigation season – the summer months including June, July, August and September, which are generally not during the legal waterfowl seasons

Levee – soil or other materials deposited to contain the flow of water

Mississippi Flyway – the established air route of migratory birds from Canada along the Mississippi River down to the Gulf of Mexico and beyond

NDMC – The National Drought Mitigation Center

NRCS – Natural Resources Conservation Service

NWMC – National Water Management Center

NWS – National Weather Service

Recharge – This is the process whereby an aquifer replenishes tapped water. Typically, as water is tapped and pulled from an aquifer, more water fills in the volume tapped, thus recharging the aquifer's water level. If certain conditions arise, such as drought and overtapping for various uses, then recharging cannot keep up with the water amounts being extracted from the aquifer and it is depleted, eventually running out of usable, fresh water. Since aquifers are usually quite large, combined with annual recharge, it takes a long time before an aquifer runs out of water

Re-lift pump – the type of pump used to move surface water a short distance above its source or origin, i.e., from a ditch into a field or reservoir

Reservoir – an impoundment for water storage either above or below the ground

Surface Water – Water standing on the top of ground or soil, waiting either to soak down into the soil or to evaporate. Is also used to characterize water that collects and stands or is stored in lakes, ponds, rivers, bayous, streams, canals and reservoirs, either natural or man-made

SCWMC – South Central Water Management Center

SHPO – State Historic Preservation Officer

Tailwater – Surface water having fallen as rain or flowing through a field as irrigation collected through a series of ditches, pipes and pumping mechanisms for return to a reservoir or other holding structure

USACE – U.S. Army Corps of Engineers

WES – U.S Army Corps of Engineers Waterways Experiment Station at Vicksburg, Miss., headquarters for the U.S. Army Engineer Research and Development Center (ERDC)

USDA – U.S. Department of Agriculture

USDM – U.S. Drought Monitor

USFWS – U.S. Fish and Wildlife Service

USGS – U.S. Geological Survey

WRID – White River Irrigation District